

ABSTRACT OF THE DISCLOSURE

There is provided a silica microstructure fabrication method. An etch stop layer is first partially deposited on an etching area of a first silica layer formed on a semiconductor substrate. A second silica layer is deposited on the surfaces of the etch stop layer and the first silica layer. A mask patterned according to the shape of the etching area is formed on the surface of the second silica layer. The second silica layer is removed from the etching area using the mask by dry etching, and the etch stop layer is removed by wet etching. A silica microstructure which is manufactured according to the present method has the second silica layer removed according to a predetermined vertical profile to provide a precise removal of the overlcladding layer in a microstructure.